

ABSTRACT OF THE DISCLOSURE

The present invention provides an ultraviolet acoustooptic device including: a radio-frequency signal input part; a transducer unit for
5 converting a radio-frequency signal into a mechanical vibration; and an acoustooptic medium whose optical characteristic varies according to the mechanical vibration. In the ultraviolet acoustooptic device, light entering the acoustooptic medium is ultraviolet light having a wavelength of 380 nm or shorter, and the acoustooptic medium is formed of an oxide single crystal
10 containing at least boron as a component of its unit cell, a LiNbO_3 crystal, or a LiNbO_3 crystal doped with MgO . Thus, an acoustooptic device can be obtained in which no laser damage nor optical damage is caused, and an ultraviolet acoustooptic device and an optical imaging apparatus using the same can be provided that do not necessarily require to be water-cooled.

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